

STIC Search Report

STIC Database Tracking Number

TO: Duc Truong

Location: REM 10D71

Art Unit : 1711 August 15, 2005

Search Notes

Case Serial Number: 10/659734

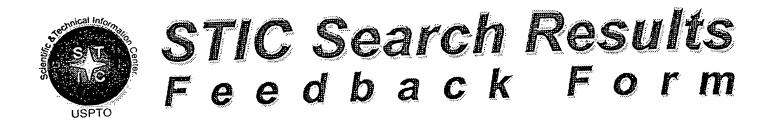
From: Usha Shrestha Location: EIC 1700 REMSEN 4B28

Phone: 571/272-3519

usha.shrestha@uspto.gov

	::::::::::::::::::::::::::::::::::::::
	
•	
	·





E[617/000

Questions about the scope or the results of the search? Contact the EIC searcher or contact:

Kathleen Fuller, EIC 1700 Team Leader 571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form
 I am an examiner in Workgroup: Example: 1713 Relevant prior art found, search results used as follows:
102 rejection103 rejection
 Cited as being of interest. Helped examiner better understand the invention. Helped examiner better understand the state of the art in their technology.
Types of relevant prior art found: [] Foreign Patent(s)
 Non-Patent Literature (journal articles, conference proceedings, new product announcements etc.)
 Relevant prior art not found: Results verified the lack of relevant prior art (helped determine patentability). Results were not useful in determining patentability or understanding the invention.
Comments:

Access DB# 161231

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full. Art Unit: 71 Mail Box and Blo	Phone 1	No N	Examiner #: 69334 Date Serial Number: 64 Sesults Format Preferred (circle) PAR	9,784					
	,	nitted, please prior	tize searches in order of need.						
Please provide a deta Include the elected s	iled statement of the pecies or structures, l	search topic, and descri	be as specifically as possible the subject mare ronyms, and registry numbers, and combin meaning. Give examples or relevant citati	e with the concept or					
Title of Invention			· · · · · · · · · · · · · · · · · · ·						
Inventors (please provide full names):									
	•		Pat. & T.M. Office						
Earliest Priority I	Filing Date:		··· Orice						
For Sequence Searc	hes Only Please inclu	de all pertinent informatio	on (parent, child, divisional, or issued patent n	umbers) along with the					
appropriate serial nun		0 - 0	0 0	0 1					
General	Joonnels in	Jam 3 p	formle Ill in claim	37. Elisk					
	•								
		•							
•	·								
			•						
	****************	*******	*****************	******					
STAFF USE ON Searcher: Whe		Type of Search NA Sequence (#)	Vendors and cost where ap						
Searcher Phone #:		AA Sequence (#)	•						
Searcher Location:		Structure (#)		•					
Date Searcher Picked Up:	8/12/05	Bibliographic							
Date Completed:		Litigation	Lexis/Nexis						
Searcher Prep & Review T	•	Fulltext	Sequence Systems						
Clerical Prep Time:	39	Patent Family							
Online Time:	300	Other	Other (specify)	•					

```
=> fil reg
FILE 'REGISTRY' ENTERED AT 13:13:12 ON 15 AUG 2005
```

=> d his

FILE 'HCAPLUS' ENTERED AT 09:29:39 ON 15 AUG 2005 L1 1 S US20040116649/PN SEL RN

FILE 'REGISTRY' ENTERED AT 09:30:12 ON 15 AUG 2005 29 S E1-E29 L2L3 STR L4STR L5 STR 260944 S PETH/PCT L6 50 S ((L3 OR L4) AND L5) SAM SUB=L6 L7 L8 9 S L6 AND L2 L9 STR STR L9 L10 50 S ((L3 AND L4) AND L5 AND L10) SAM SUB=L6 L11 L12 SCR 2043 50 S ((L3 OR L4) AND L5 AND L10) AND L12 L13 L14 33649 S ((L3 OR L4) AND L5 AND L10) AND L12 FUL 10353 S L6 AND L14 L15 L16 4595 S L15 AND 1/NC L17 2 S L2 AND L16 STR L18 L19 50 S L18 SAM SUB=L14 L20 STR L18 L21 0 S L20 SAM SUB=L14 L22 9 S L20 FUL SUB=L14

SAV L22 DUC734/A

FILE 'REGISTRY' ENTERED AT 13:13:12 ON 15 AUG 2005

=> d que 123

L3 STR



NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE L4 STR

CH2~CH2~O 1 2 3

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE L5 STR

4 0 ||| Ak-\(^C---N 1 2 3

NODE ATTRIBUTES:
CONNECT IS E2 RC AT 3
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE L10 STR

NODE ATTRIBUTES:
CONNECT IS E2 RC AT 2
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE L12 SCR 2043

L14 33649 SEA FILE=REGISTRY SSS FUL ((L3 OR L4) AND L5 AND L10)
AND L12

L20 STR

 $\begin{array}{c} & & & & & 7 \\ & & & & 0 \\ & & & || \\ CH2 \cdot CH2 \cdot O \leadsto Ak \leadsto C \leadsto H \\ 1 & 2 & 3 & 4 & 5 & 6 \end{array}$

NODE ATTRIBUTES: CONNECT IS E1 RC AT 7 DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L22 9 SEA FILE=REGISTRY SUB=L14 SSS FUL L20

L23 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L22

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 13:13:27 ON 15 AUG 2005

=> d 123 1-12 ibib abs hitstr hitind

L23 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2005:14261 HCAPLUS

DOCUMENT NUMBER:

142:114733

TITLE:

Polymer derivatives having particular atom arrangements in a linking group, their preparation, and use in compositions and as

conjugates

INVENTOR(S):

Harris, J. Milton; Kozlowski, Antoni; McManus,

Samuel P.; Bentley, Michael D.; Charles,

Stephen A.

PATENT ASSIGNEE(S):

Nektar Therapeutics AL, Corporation, USA

SOURCE:

PCT Int. Appl., 113 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	rent :				KIN	D	DATE			APPL	ICAT	ION :	NO.		DATE
						-									
	2005		60		A 2		2005	0106	,	WO 2	004-1	US16	212		
															2004
															0521
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	ΒA,	BB,	BG,	BR,	BW,	BY,	BZ,
		CA,	CH,	CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,
		ES,	FI,	GB,	GD,	GΕ,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,
		KE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,
		MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,
		PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,	TR,
		TT,	TZ,	UΑ,	ŪĠ,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW		
	RW:	BW,	GH,	GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,
		ZW,	AM,	ΑZ,	BY,	KG,	KZ,	MD,	·RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,
		CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,
		MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,
		CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG			
US	2005	0099	88		A1		2005	0113	1	US 2	004-	8516	91		
															2004
															0501

0521

PRIORITY APPLN. INFO.:

US 2003-473213P

2003

Ρ

. 0523

AB Polymeric reagents comprise a moiety of atoms arranged in a specific order, where the moiety is positioned between a water-soluble polymer and a reactive group. The polymeric reagents are useful for, among other things, forming polymer-active agent conjugates.

IT 820247-09-4P

(functional pegylated reagents and conjugates with drugs, peptides, and hormones)

RN 820247-09-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α' -[7-[(4,21-dioxo-8,11,14,17-tetraoxa-5-azaheneicos-1-yl)oxy]-4,10-dioxo-5,9-dioxa-3,11-diazatridecane-1,13-diyl]bis[ω -methoxy-(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

IC ICM A61K047-48

CC 35-8 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 23, 38, 63

9001-27-8DP, Factor VIII, conjugate with polyethylene glycol IT derivative 9002-68-0DP, Follicle-stimulating hormone, conjugate with polyethylene qlycol derivative 9002-72-6DP, Somatotropin, conjugate with polyethylene glycol derivative 11096-26-7DP, Erythropoietin, conjugate with polyethylene glycol derivative 16679-58-6DP, Desmopressin, conjugate with polyethylene glycol derivative 143011-72-7DP, G-CSF, conjugate with polyethylene glycol derivative 145514-04-1DP, Amdoxovir, conjugate with polyethylene glycol derivative 275392-18-2DP, conjugate with polyethylene glycol derivative 820247-07-2P **820247-09-4P** 820247-11-8P 820247-12-9P 820247-17-4P 820247-18-5P 820247-19-6P 820247-20-9P 820247-21-0P 820247-22-1P

(functional pegylated reagents, and conjugates with drugs, peptides, and hormones)

L23 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:533960 HCAPLUS

DOCUMENT NUMBER: 141:94299

TITLE:

N-Terminally monoPEGylated human growth hormone conjugates and process for their

preparation

INVENTOR(S):

Finn, Rory F.

USA

PATENT ASSIGNEE(S): SOURCE:

U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	NO

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 2004127417	A 1	20040701	US 2003-718340	2003
	NL 1024831	A 1	20040526	NL 2003-1024831	1120
	NB 1024031	A.	20040320	NE 2003 1024031	2003 1120
	NL 1024831	C2	20050428	W	1120
	US 2004142870	A1	20040722	US 2004-771895	2004 0204
PRIOR	ITY APPLN. INFO.:			US 2002-427823P P	2002 1120
				US 2003-718340 A2	2003 1120

- AB The present invention provides a chemical modified human Growth Hormone (hGH) prepared by attaching a polyethylene glycol butyraldehyde moiety to the N-terminal phenylalanine of the protein. The chemical-modified protein according to the present invention may have a much longer lasting hGH activity than that of the un-modified hGH, enabling reduced dose and scheduling opportunities.
- IT 672305-37-2DP, conjugates with human growth hormone (preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)
- RN 672305-37-2 HCAPLUS
- CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaoctadec-1-yl)-1,5pentanediyl]bis(iminocarbonyl)]bis[ω-methoxy- (9CI) INDEX NAME)

PAGE 1-A

OHC- (CH₂)₃-O-CH₂-CH₂-O-CH₂-CH₂-O-CH₂-CH₂-O-CH₂-CH₂-NH-

PAGE 1-B

$$\begin{array}{c|c} & & & \\ & & &$$

IT 672305-37-2

(preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)

RN 672305-37-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaoctadec-1-yl)-1,5-pentanediyl]bis(iminocarbonyl)]bis[ω -methoxy-(9CI) (CAINDEX NAME)

PAGE 1-A

OHC-
$$(CH_2)_3$$
-O- CH_2 - CH_2 -O- CH_2 - CH_2 -O- CH_2 - CH_2 -O- CH_2 - CH_2 -NH-

PAGE 1-B

$$\begin{array}{c|c} & \text{NH-} & \overset{\text{O}}{\text{C}} & \text{O} & \text{CH}_2 - \text{CH}_2 & \text{OMe} \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

IC ICM A61K038-27

ICS C07K014-61

INCL 514012000; 530399000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 2, 35

IT 9002-72-6DP, Somatotropin, conjugates with PEG derivative 82030-87-3DP, Methionyl human growth hormone, conjugates with PEG derivative 672305-37-2DP, conjugates with human growth hormone

(preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)

IT 9002-72-6, Somatotropin 533881-58-2 672305-37-2

(preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)

L23 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

DATE

```
DUC 10/659,734
ACCESSION NUMBER:
                         2004:220384 HCAPLUS
DOCUMENT NUMBER:
                         140:271415
TITLE:
                         Water-soluble polymer alkanals
INVENTOR(S):
                         Kozlowski, Antoni
PATENT ASSIGNEE(S):
                         Nektar Therapeutics Al, Corporation, USA
SOURCE:
                         PCT Int. Appl., 127 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
                         1
PATENT INFORMATION:
     PATENT NO.
                                            APPLICATION NO.
                         KIND
                                DATE
```

		-		`	•
WO 200	4022630	A2	20040318	WO 2003-US28221	2003
WO 200 W:	CH, CN, CO, FI, GB, GD, KG, KP, KR, MK, MN, MW,	CR, CU GE, GH KZ, LC MX, MZ	, CZ, DE, , GM, HR, , LK, LR, , NI, NO,	BA, BB, BG, BR, BY, BZ, DK, DM, DZ, EC, EE, EG, HU, ID, IL, IN, IS, JP, LS, LT, LU, LV, MA, MD, NZ, OM, PG, PH, PL, PT,	ES, KE, MG, RO,
RW	UA, UG, US, : GH, GM, KE, AZ, BY, KG, DE, DK, EE,	UZ, VC LS, MW KZ, MD ES, FI SI, SK	, VN, YU, , MZ, SD, , RU, TJ, , FR, GB, , TR, BF,	SL, SZ, TZ, UG, ZM, ZW, TM, AT, BE, BG, CH, CY, GR, HU, IE, IT, LU, MC, BJ, CF, CG, CI, CM, GA,	AM, CZ, NL,
CA 249		AA	20040318		2003 0909
		A1	20040617	US 2003-659734	2003 0909
EP 154	6235	A2	20050629	EP 2003-752147	2003 0909
R:				GB, GR, IT, LI, LU, NL, RO, MK, CY, AL, TR, BG,	
PRIORITY AP	PLN. INFO.:	-		US 2002-409251P	P 2002 0909
				US 2003-456580P	P 2003 0319
				US 2003-456850P	P 2003 0321
				WO 2003-US28221	W 2003 0909

AB The present invention is directed to alkanal derivs. of water-soluble

polymers such as poly(ethylene glycol), their corresponding hydrates and acetals, and to methods for preparing and using such polymer alkanals. The polymer alkanals of the invention are prepared in high purity and exhibit storage stability. Thus, 2.0 g polyethylene glycol Me ether and 0.5 g 4-chlorobutyraldehyde di-Et acetal were reacted in the presence of 4.0 mL 1.0 M potassium tert-butoxide tert-butanol solution at 100-105° to give 1.6 g methoxy polyethylene glycol butyraldehyde di-Et acetal, 1.0 g of which was hydrolyzed to give 0.72 g methoxy polyethylene glycol butyraldehyde, which was used for pegylation of lysozyme.

IT 672305-37-2P

> (preparation of water-soluble polymer alkanals for pegylation of lysozyme)

672305-37-2 HCAPLUS RN

Poly(oxy-1,2-ethanediyl), α,α' -[[(1S)-1-(1,18-dioxo-CN 5,8,11,14-tetraoxa-2-azaoctadec-1-yl)-1,5pentanediyl]bis(iminocarbonyl)]bis[ω-methoxy- (9CI) INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$$

IC ICM C08G065-329

ICS C07C047-198; C07K001-107

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 63

IT 1397-89-3DP, Amphotericin B, reaction products with methoxy polyoxyalkylene butyral 9001-63-2DP, Lysozyme, amino derivs., reaction products with methoxy polyethylene glycol butyraldehyde 9002-68-0DP, Follicle stimulating hormone, reaction products with methoxy polyoxyalkylene butyral 9002-72-6DP, Somatotropin, reaction products with methoxy polyoxyalkylene butyral 11096-26-7DP, EPO, reaction products with methoxy polyoxyalkylene 143011-72-7DP, GCSF, reaction products with methoxy polyoxyalkylene butyral 533881-58-2DP, reaction products with lysozyme 672305-37-2P

> (preparation of water-soluble polymer alkanals for pegylation of lysozyme)

L23 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2003:9687 HCAPLUS

DOCUMENT NUMBER:

139:202230

TITLE:

Hyaluronic acid hydrogel film: a new biomaterial for drug delivery and wound

nealing

AUTHOR(S):

Luo, Yi; Kirker, Kelly R.; Prestwich, Glenn D.

CORPORATE SOURCE:

Department of Medicinal Chemistry, The University of Utah, Salt Lake City, UT,

84112-5820, USA

SOURCE:

Hyaluronan, [Proceedings of the International Cellucon Conference], 12th, Wrexham, United Kingdom, 2000 (2002), Meeting Date 2000, Volume 2, 271-276. Editor(s): Kennedy, John F. Woodhead Publishing Ltd.: Cambridge, UK.

CODEN: 69DKVZ; ISBN: 1-85573-570-9

DOCUMENT TYPE:

Conference

LANGUAGE:

English

A new hyaluronic acid (HA)-based hydrogel film was developed and evaluated for use in drug delivery and wound healing. This biocompatible material crosslinks and gels in minutes, and the dried film swells and rehydrates to a flexible hydrogel in seconds. HA was first converted to the adipic dihydrazide (ADH) derivative and then crosslinked with the macromol. homobifunctional reagent poly(ethylene glycol)-propiondialdehyde (PEG-diald) to give a polymer network. After gelation, a solvent casting method was used to obtain an HA hydrogel film. The dried film swelled sevenfold in volume in buffer, reaching equilibrium in less than 100 s. SEM of the hydrogel films showed a condensed and featureless structure before swelling, but a porous microstructure when hydrated. The thermal behavior of the hydrogel films, characterized by differential scanning calorimetry, indicated that the crosslinking of the two polymers clearly produced a new material having a microstructure different from either of its two components. The in vitro enzymic degradation of the HA hydrogel films by hyaluronidase (HAse) was also studied using SEM. Drug release from the hydrogel film was also evaluated in vitro using selected anti-bacterial and anti-inflammatory drugs. This novel biomaterial can be employed for controlled release of therapeutic agents at wound sites.

IT 631898-69-6P

(hyaluronic acid hydrogel film-new biomaterial for drug delivery and wound healing)

RN 631898-69-6 HCAPLUS

CN Hyaluronic acid, polymer with hexanedioic acid dihydrazide and α -(3-oxopropyl)- ω -(3-oxopropoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 151709-76-1

CMF (C2 H4 O)n C6 H10 O3

CCI PMS

онс—
$$\text{сн}_2$$
— сн_2 — $\text{с$

CM 2

CRN 9004-61-9 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 1071-93-8 CMF C6 H14 N4 O2

CC 63-5 (Pharmaceuticals)

IT 631898-69-6P

(hyaluronic acid hydrogel film-new biomaterial for drug delivery and wound healing)

REFERENCE COUNT:

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

24

ACCESSION NUMBER:

1996:630259 HCAPLUS

DOCUMENT NUMBER:

125:269871

TITLE:

Polymer compositions and methods for directed

ultrasound imaging

INVENTOR(S):

Quay, Steven C.; Marrs, Christopher M.; Worah,

Dilip M.

PATENT ASSIGNEE(S):

Sonus Pharmaceuticals, Inc., USA

SOURCE:

Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	TENT NO.		KIND	DATE	APPLICATION NO.	DATE
EP	727225		A2	19960821	EP 1996-630007	1996
						0208
ЕP	727225		A3	19970115		
		, BE, CH, , PT, SE	DE, DE	C, ES, FR,	GB, GR, IE, IT, LI,	LU, MC,
JP	0832516	•	A2	19961210	JP 1996-52387	
						1996
						0214
PRIORITY	APPLN.	INFO.:			US 1995-388468	A 1995
						0214
					US 1995-471568	A 1995
PRIORITY	C APPLN.	INFO.:				1995 0214

AB Compns. for enhancing the ability to target gaseous microbubbles used in ultrasound contrast are described. The compns. include a cell adhesion mol. ligand which is incorporated into a desired mol. to form a conjugate. When the contrast agent is a colloidal dispersion, the conjugate is formed with a surfactant. When the agent is a solid microsphere, the conjugate is formed with a portion of the solid. Once the conjugate is formed, the surfactant or microsphere will adhere to the surface of desired target cells by coupling of the CAM ligand to cell adhesion mols. expressed on the cell surface. Thus, Jeffamine M-2070 was allowed to react with Sialyl Lewis X in the presence of NaCNBH3 and the product formed was uses in compns. and.

IT 182232-90-2P

(polymer compns. for directed ultrasound imaging)

RN 182232-90-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[0-(N-acetyl-α-neuraminosyl)-(2→3)-O-β-D-galactopyranosyl(1→4)-O-[6-deoxy-α-L-galactopyranosyl-(1→3)]-2(acetylamino)-2,6-dideoxy-D-gluco-hepturonoyl]-ω-[2[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethoxy]- (9CI) (CFINDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c}
0 \\
| \\
0 = S - (CF_2)_7 - CF_3 \\
| \\
- CH_2 - CH_2 - N - Et
\end{array}$$

IC ICM A61K049-00

CC 9-16 (Biochemical Methods)

Section cross-reference(s): 33, 34, 35, 46, 63

IT 65545-80-4P, Zonyl FSN-100 122525-99-9P, Zonyl FSO-100 182232-54-8P 182232-61-7P 182232-70-8P 182232-82-2P 182232-90-2P 182232-98-0P 182371-79-5P, Afilan OTN

(polymer compns. for directed ultrasound imaging)

L23 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1996:446567 HCAPLUS

DOCUMENT NUMBER:

125:96067

TITLE:

Terminal reducing sugar-containing glucose or

galactose polymers as carriers for mucosal

drug administration

INVENTOR (S):

Koyama, Yoshuki; Kataoka, Kazunori; Okano, Mitsuo; Nakatomi, Ichiro; Suzuki, Hiroyuki

PATENT ASSIGNEE(S):

SOURCE:

Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08104651	A2	19960423	JP 1994-66638	
				1994
				0310
PRIORITY APPLN. INFO.:			JP 1994-66638	A
				1994
				0310
			TD 1002 96002	
			JP 1993-76083	
				1993
				0310

AB Terminal reducing sugar-containing glucose or galactose polymers or reducing alkyl sugar-containing mols. are effective carriers for mucosal administration of drugs such as calcitonin. The method showed good bioavailability and avoided skin damages due to prolonged administration by injection.

IT 178937-68-3P

(terminal reducing sugar-containing glucose or gálactose polymers or reducing alkyl sugar-containing mols. as carriers for mucosal drug administration)

RN 178937-68-3 HCAPLUS

CN D-Glucose, 6-O-[3-[[2-[(1-oxo-2-propenyl)amino]ethyl]thio]propyl]-, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 178937-67-2 CMF C14 H25 N O7 S

Absolute stereochemistry.

```
CM 2
```

CRN 79-10-7 CMF C3 H4 O2

| | но− с− сн== сн₂

IC ICM A61K047-48

ICS A61K009-00

ICA C07H009-04; C07H013-04; C07H013-06

CC · 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT 155107-48-5P 178937-63-8P 178937-65-0P **178937-68-3P**(terminal reducing sugar-containing glucose or galactose polymers or reducing alkyl sugar-containing mols. as carriers for mucosal drug administration)

L23 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1989:156586 HCAPLUS

DOCUMENT NUMBER:

110:156586

TITLE:

Chitin-containing cleaning solutions

INVENTOR(S):
PATENT ASSIGNEE(S):

Deguchi, Katsuhiko Kao Corp., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
TD 63103000		10000011	7D 100E 050E4	
JP 63193999	A2	19880811	JP 1987-25974	
•				1987
				0206
PRIORITY APPLN. INFO.:			JP 1987-25974	
			V.	1987
		• •		0206

- AB Title solns. which are stable liqs. and do not form film nor gel in contact with air, contain alkylethoxysulgates R1O(C2H4O)nSO3M (R1 = C≥7 alkyl; n ≥1; M = alkali or alkaline earth metal) 10-40, tertiary amine oxides R2R3R4NO (R2 = C10-18 alkyl, C10-18 alkenyl; R3-4 = C1-2 alkyl) 0.5-10, and (c) water-soluble chitins 0.01-10%. Thus, Na polyoxyethylene dodecyl ether sulfate 15, dodecyldimethylamine oxide 3, and chitin carboxymethyl ether (I) 0.5% were mixed in water to give a solution forming no film on its surface after 3 days at 20° and 60% relative humidity, whereas film was formed in the absence of I.
- IT 57216-54-3

(liquid detergents containing, with good resistance to gel and film formation)

RN 57216-54-3 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-6-0-(2-hydroxyethyl)-,

homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6 CMF C10 H19 N O7

Absolute stereochemistry.

IC ICM C11D010-02

ICI C11D010-02, C11D001-29, C11D001-75, C11D003-38

CC 46-6 (Surface Active Agents and Detergents)

IT 1643-20-5, Dodecyldimethylamine oxide 9004-82-4 57216-53-2

57216-54-3 99576-08-6

(liquid detergents containing, with good resistance to gel and film formation)

L23 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1989:73773 HCAPLUS

DOCUMENT NUMBER:

110:73773

TITLE:

Glycosylated polyethylene glycol derivatives

for glycosylation of proteins

INVENTOR (S):

Minami, Isao; Ueno, Hayao; Fujino, Masahiko

PATENT ASSIGNEE(S):

Takeda Chemical Industries, Ltd., Japan

SOURCE:

Eur. Pat. Appl., 16 pp. CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 251304	A2	19880107	EP 1987-109425	1987
EP 251304	А3	19900110		0630
		, FR, GB,	GR, IT, LI, LU, NL, SE JP 1987-161898	
				1987 0629
CA 1303030	A1	19920609	CA 1987-541108	1987
US 5037969	A	19910806	US 1990-532179	0702
DD 700 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7				1990 0604
PRIORITY APPLN. INFO.:			JP 1986-156698	A 1986 0703

US 1987-68915

1987 0702

R1

AB The glycosylated polyethylene glycol derivs. RO(CH2CH2O)m(CH2)nZ (I; Z = CHO, CH2OH, CO2H; m = optional pos. integer; n = 1-3; R = glycosyl), which are useful as chemical-modifying agents for proteins and protein-fractioning agents, are prepared Polyethylene glycol mono-tetrahydropyranyl ether was glycosylated with acetobromogalactose and deprotected to give 2,3,4,6-tetra-0-acetyl- $\beta\text{-}D\text{-}galactopyranosylpolyethylene glycol, which was oxidized}$ using oxalyl chloride-Me2SO-Et3N, and deprotected by alkaline hydrolysis to give β-D-galactopyranosylpolyethylene glycol aldehyde (II). II reacted with recombinant interferon- α (IFN- α) in the presence of Na cyanoborohydride to give glycosylated IFN- α (III), in which 6.9 of the 11 Lys residues had been modified; the activity was 0.83 + 106 IU/mg. III was selectively adsorbed on a WGA-agarose column, while unmodified IFN- α and polyethylene glycol-modified IFN- α passed through the column; the degree of adsorption increased with increasing modification.

IT 117265-75-5P 117360-33-5P

(preparation of, for protein glycosylation)

RN 117265-75-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(2-oxoethyl)- ω -[[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy- β -D-glucopyranosyl]oxy]-(9CI) (CA INDEX NAME)

RN 117360-33-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-(acetylamino)-2-deoxy- β -D-glucopyranosyl]- ω -(2-oxoethoxy)- (9CI) (CA INDEX NAME)

IC ICM C08G065-28

ICS C07H015-08; C08G065-32; C07K003-00

CC 15-5 (Immunochemistry)

Section cross-reference(s): 9

IT 57-50-1DP, polyethylene glycol-bound 63-42-3DP, Lactose, polyethylene glycol-bound 69-79-4DP, polyethylene glycol-bound 72-87-7DP, polyethylene glycol-bound 90-74-4DP, Rutinose,

90-76-6DP, polyethylene glycol-bound polyethylene glycol-bound 90-77-7DP, polyethylene glycol-bound 131-48-6DP, polyethylene glycol-bound 512-69-6DP, Raffinose, polyethylene glycol-bound 528-50-7DP, Cellobiose, polyethylene glycol-bound 546-60-1DP, Umbelliferose, polyethylene glycol-bound 577-76-4DP, Chitobiose, polyethylene glycol-bound 585-99-9DP, Melibiose, polyethylene 2280-44-6DP, Glucopyranose, polyethylene glycol-bound glycol-bound 2438-80-4DP, Fucopyranose, polyethylene 4618-18-2DP, Lactulose, polyethylene glycol-bound glycol-bound 6082-29-7DP, polyethylene glycol-bound 6860-47-5DP, Xylobiose, polyethylene glycol-bound 10257-31-5DP, Xylopyranose, 10257-35-9DP, Lyxopyranose, polyethylene glycol-bound 14116-69-9DP, Vicianose, polyethylene polyethylene glycol-bound glycol-bound 15761-67-8DP, Ribofuranose, polyethylene glycol-bound 25322-68-3DP, glycosylated and functionalized 26388-68-1DP, Sambubiose, polyethylene glycol-bound 35890-38-1DP, Sialyllactose, polyethylene glycol-bound 40825-89-6DP, Galactopyranose, polyethylene glycol-bound 46032-76-2DP, Mannopyranose, polyethylene glycol-bound 58166-22-6DP, Turanose, polyethylene glycol-bound 89299-64-9DP, Arabinopyranose, polyethylene glycol-bound 117265-74-4P 117265-75-5P 117265-76-6P 117265-77-7P 117265-78-8P 117265-79-9P 117265-81-3P 117265-82-4P 117265-83-5P 117265-85-7P 117287-24-8P 117360-32-4P 117360-33-5P 117360-34-6P 117360-35-7P 117360-36-8P 117360-37-9P 117466-16-7DP, polyethylene glycol-bound 118649-12-0DP, polyethylene glycol-bound (preparation of, for protein glycosylation)

L23 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1981:180713 HCAPLUS

DOCUMENT NUMBER:

94:180713

TITLE:

Surgical lubricating powder for natural or

synthetic rubber surgical elements

INVENTOR(S):

Casey, Donald James

PATENT ASSIGNEE(S):

American Cyanamid Co., USA

SOURCE:

Brit., 9 pp. CODEN: BRXXAA

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	·			
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-			
GB 1583180	Α	19810121	GB 1977-44643	
				1977
				1026
US 4059097	A	19771122	US 1976-738502	
		17,,1110	05 1570 750502	1976
				1103
US 4064564	Α	19771227	US 1976-738200	
				1976
				1103
US 4068757	Α	19780117	US 1976-738501	1105
05 4000/5/	Α	13/0011/	05 1976-736301	
				1976
				1103
BE 860423	A1	19780503	BE 1977-182300	
				1977

```
1103
PRIORITY APPLN. INFO.:
                                             US 1976-738200
                                                                    1976
                                                                    1103
                                             US 1976-738501
                                                                 Α
                                                                    1976
                                                                    1103
                                             US 1976-738502 .
                                                                 Α
                                                                    1976
                                                                    1103
AB
     A sterile surgical laminate package comprised a strippable
     laminate container containing a sterile rubber glove, on the surface
     of which was a lubricating powder consisting essentially of 1.5 g
     of an enzymically degradable form of poly(N-acetyl-D-glucosamine)
          [27555-50-6]; the powder's particle size was 0.5-149 \mu and
     it would pass through a 200 mesh screen. I was prepared by grinding
     com. chitin in a ball mill to a particle size of between 1 and 6
     mm, followed by sequential treatment with 2N HCl, 90% HCO2H, and
     10% NaOH. I could be used per se or converted into I membranes,
     poly[N-acetyl-6-0-(carboxymethyl)-D-glucosamine] [57216-53-2],
    poly[N-acetyl-6-0-(2'-hydroxyethyl)-D-glucosamine]
     57216-54-3], or poly(N-acetyl-6-0-ethyl-D-glucosamine)
     57216-56-5].
IT
     57216-54-3P 57216-56-5P
        (preparation of, as surgical glove lubricant)
RN
     57216-54-3 HCAPLUS
CN
    D-Glucose, 2-(acetylamino)-2-deoxy-6-0-(2-hydroxyethyl)-,
    homopolymer (9CI) (CA INDEX NAME)
    CM
```

CRN 27024-00-6 CMF C10 H19 N O7

Absolute stereochemistry.

RN 57216-56-5 HCAPLUS
CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-ethyl-, homopolymer (9CI)
(CA INDEX NAME)

CM 1

CRN 57216-55-4 CMF C10 H19 N O6

Absolute stereochemistry.

IC C08B037-06

CC 63-7 (Pharmaceuticals)

IT 57216-53-2P 57216-54-3P 57216-56-5P

(preparation of, as surgical glove lubricant)

L23 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1978:197685 HCAPLUS

DOCUMENT NUMBER:

88:197685

TITLE:

Chitin derived powder in sterile surgical

element package

INVENTOR(S):

Casey, Donald James

PATENT ASSIGNEE(S):

American Cyanamid Co., USA

SOURCE:

U.S., 8 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 US 4068757	A	19780117	US 1976-738501	
				1976
AU 7729651	A1	19790426	AU 1977-29651	1103
A0 //25051	AT.	13/30420	A0 13//-23031	1977
				1013
GB 1583180	Α	19810121	GB 1977-44643	
				1977
DE 2748231	A1	19780518	DE 1977-2748231	1026
DD 2/40231	AI	15700510	DE 15// 2/40251	1977
•		•		1027
SE 7712400	Α	19780503	SE 1977-12400	
				1977
DK 7704873	Α	19780504	DK 1977-4873	1102
DR 7704873	A	19/60304	DR 1977-4673	1977
				1102
JP 53058186	A2	19780525	JP 1977-130946	
				1977
W 5510100	_			1102
NL 7712138	A	19780508	NL 1977-12138	1977
				1103
FR 2369826	A1	19780602	FR 1977-33071	1103
				1977
•				1103
PRIORITY APPLN. INFO.:			US 1976-738200 A	
				1976

1103

US 1976-738501

1976

1103

US 1976-738502

1976

1103

AB Natural or synthetic surgical goods are lubricated by a finely divided chitin-derived biodegradable powder of poly(N-acetyl-D-glucosamine) [27555-50-6], poly[N-acetyl-6-0-(carboxymethyl)-D-glucosamine [57216-53-2], poly[N-acetyl-6-0ethyl-D-glucosamine [57216-56-5], or poly[N-acety1-6-0-(2'-hydroxyethy1)-D-glucosamine [57216-54-3]. Lubricated gloves may be sterilized with no adverse effect on the disirable properties of the powder. powder is readily absorbed by living tissue without deleterious tissue reaction. Thus, poly(N-acetyl-D-glucosamine) was obtained from powdered chitin by extraction with 2N HCl (decalcification), washing the material with water till neutral, and stirring it with 90% HCO2H overnight at room temperature The mixture was centrifuged and water-washed residue was suspended in 10% NaOH and heated at 90-100° for 2.5 h. The cake obtained after filtering, was washed with water until neutral and dried at 40°.

IT 57216-54-3P 57216-56-5P

(chitin derived surgical good lubricant, preparation of)

RN 57216-54-3 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-6-0-(2-hydroxyethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6 CMF C10 H19 N O7

Absolute stereochemistry.

RN 57216-56-5 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 57216-55-4 CMF C10 H19 N O6

Absolute stereochemistry.

OHC R R S R OET

IC A61L017-02 INCL 206363000

CC 63-7 (Pharmaceuticals)

IT 27555-50-6P 57216-53-2P 57216-54-3P

57216-56-5P

(chitin derived surgical good lubricant, preparation of)

L23 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1978:126373 HCAPLUS

DOCUMENT NUMBER:

88:126373

TITLE:

Minimizing tissue reaction during surgery with

chitin

INVENTOR(S):

Casey, Donald James

PATENT ASSIGNEE(S):

American Cyanamid Co., USA

SOURCE:

U.S., 8 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND 	DATE	APPLICATION NO.	DATE
 US 4059097	A	19771122	US 1976-738502	
				1976
				1103
AU 7729651	A1	19790426	AU 1977-29651	1977
				1977
GB 1583180	A	19810121	GB 1977-44643	1013
,			02 13 11010	1977
				1026
DE 2748231	A1	19780518	DE 1977-2748231	
				1977
	_			1027
SE 7712400	A	19780503	SE 1977-12400	1977
				1102
DK 7704873	A	19780504	DK 1977-4873	. 1102
		13,00301	21(13), 10,3	1977
				1102
JP 53058186	A2	19780525	JP 1977-130946	
				1977
				1102
NL 7712138	A	19780508	NL 1977-12138	
				1977
TD 2260026	7.1	10700602	PD 1077 33071	1103
FR 2369826	A1	19/80602	FR 1977-33071	1977
				1103
				1100

PRIORITY APPLN. INFO.:

US 1976-738200 A
1976
1103

US 1976-738501 A
1976
1103

US 1976-738502

1976 1103

GI For diagram(s), see printed CA Issue.

AB Surgical rubber gloves are lubricated by applying finely powdered biodegradable poly(N-acetyl-D-glucosamine) (I) [27555-50-6], poly[N-acetyl-6-O-(carboxymethyl)-D-glucosamine] [57216-53-2], poly[N-acetyl-6-0-(2'-hydroxyethyl)-D-glucosamine] **57216-56-5**], or poly[N-acetyl-acetyl-6-0-(ethyl)-Dglucosamine] [57216-54-3]. These powders were readily absorbed by living tissue without deleterious tissue reactions. The polymers were derived from chitin [1398-61-4]. Thus, finely ground com. chitin was decalcified by extracting with 2N HCl at 4° for 48 h. The material was collected by centrifugation and washed with water till neutral. The decalcified chitin was stirred at room temperature with HCO2H overnight. The mixture was centrifuged and the residue was washed with water. The washed chitin was suspended in 10% NaOH and was heated at 90-100° for 2.5 h. The solution was filtered, washed till neutral, and dried to give pure I.

IT 57216-54-3 57216-56-5

(as lubricant, for surgical rubber goods, preparation of)

RN 57216-54-3 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-6-0-(2-hydroxyethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6 CMF C10 H19 N O7

Absolute stereochemistry.

RN 57216-56-5 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 57216-55-4 CMF C10 H19 N O6

Absolute stereochemistry.

OHC R R S R OET

IC A61B019-04 INCL 128001000R

CC 63-8 (Pharmaceuticals)

IT 27555-50-6 57216-53-2 **57216-54-3 57216-56-5**

(as lubricant, for surgical rubber goods, preparation of)

L23 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1976:35314 HCAPLUS

DOCUMENT NUMBER:

84:35314

TITLE:

Enzymically decomposable bioerodible

pharmaceutical carrier

INVENTOR(S):

Capozza, Richard C.

PATENT ASSIGNEE(S):

American Cyanamid Co., USA

SOURCE:

Ger. Offen., 24 pp. CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2505305	A 1	19750821	DE 1975-2505305	
22 2303303	***	13730021	22 13/3 2303303	1975
				0207
US 3911098	A	19751007	US 1974-441695	
				1974
				0211
ZA 7500472	A	19760128	ZA 1975-472	
		•		1975
				0122
IL 46496	A1	19780831	IL 1975-46496	1005
				1975
AU 7577602	A1	19760729	AU 1975-77602	0123
AU /3//602	WI	19/60/29	AU 1975-77602	1975
				0124
GB 1499751	Α	19780201	GB 1975-4193	0121
		13,00101	CD 137,3 1133	1975
			,	0130
NL 7501365	Α .	19750813	NL 1975-1365	
				1975
		•		0205
CA 1045975	A1	19790109	CA 1975-219603	
				1975
		•		0207
BE 825367	A1	19750811	BE 1975-153217	
				1975
GD 5501464	_	10880016		0210
SE 7501464	Α	19750812	SE 1975-1464	

USHA SHRESTHA EIC 1700 REM 4B28

```
1975
                                                                         0210
                                   19801030
     RO 68711
                            Р
                                               RO 1975-81371
                                                                         1975
                                                                         0210
     FR 2260356
                            A1
                                   19750905
                                               FR 1975-4245
                                                                         1975
                                                                         0211
     DD 118801
                            С
                                   19760320
                                               DD 1975-184115
                                                                         1975
                                                                         0211
     ES 434618
                            A1
                                   19770416
                                               ES 1975-434618
                                                                         1975
                                                                         0211
     CS 207808
                            В
                                   19810831
                                               CS 1975-860
                                                                         1975
                                                                         0211
     JP 50123815
                            A2
                                  19750929
                                               JP 1975-16958
                                                                         1975
                                                                         0212
PRIORITY APPLN. INFO.:
                                               US 1974-441695
                                                                         1974
                                                                         0211
```

An enzymically degradable form of poly(N-acetyl-D-glucosamine) (chitin) [27555-50-6] served as a matrix for controlled release of drugs, especially in the eye. Degradable forms included also poly(N-acetyl-6-O-carboxymethyl-D-glucosamine) [57216-53-2], poly[N-acetyl-6-0-(2-hydroxyethyl)-D-glucosamine] [57216-54-3], and poly(N-acetyl-6-0-ethyl-D-glucosamine) [57216-56-5], all of which were degraded by lysozyme [9001-63-2]. Preparation of these polymers from com. chitin was described. Films of the latter 3 polymers were prepared from aqueous solns.; suitable solvents for poly(N-acetyl-D-glucosamine) were hexafluoroacetone [684-16-2] sesquihydrate and hexafluoroisopropanol [920-66-1]. Thus, 50 mg pilocarpine nitrate [148-72-1] was added to a 5% aqueous solution of poly(N-acetyl-6-0carboxymethyl-D-qlucosamine) (0.95 g) and poured on a glass plate to form a 1.02 mm film which was dried and soaked in 10% alum solution for 5 hr. A 1 + 10 mm section of this film, placed on the eye surface of rabbits, was well tolerated and caused pupil contraction lasting 6 hr.

IT 57216-54-3 57216-56-5

(pharmaceutical controlled release from matrix of, in eye)

RN 57216-54-3 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-6-0-(2-hydroxyethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6 CMF C10 H19 N O7

Absolute stereochemistry.

RN 57216-56-5 HCAPLUS

CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 57216-55-4 CMF C10 H19 N O6

Absolute stereochemistry.

IC A61K; A61F

CC 63-6 (Pharmaceuticals)

IT 27555-50-6 35110-26-0 57216-53-2 **57216-54-3 57216-56-5**

(pharmaceutical controlled release from matrix of, in eye)